SLOPE-INTERCEPT **POINT-SLOPE** GENERAL **FORM**

REVIEW NOTES!

Slope-Intercept Form: $\mathbf{y = mx + b}$

Identify the slope and y-intercept.

1) $y = -2x + 7$

2) $6x - 3y = 18$

m=_____ b=_____

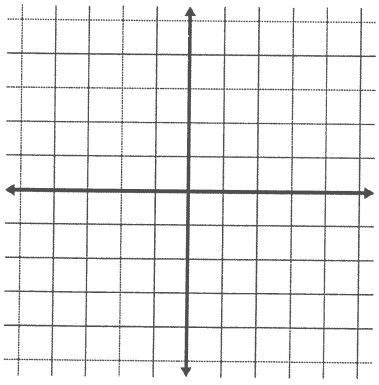
m=_____ b=_____

Graph:

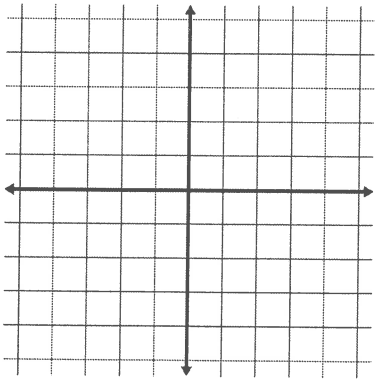
3) $y = 3x - 1$

4) $2x + 3y = 9$

m=_____ b=_____



m=_____ b=_____



6-4

Point-Slope Form: $\mathbf{y - y_1 = m(x - x_1)}$

Write the equation in point-slope form, then in slope-intercept form, then graph.

5) , *Point* (4,5) slope ___

Line is perpendicular to a line with slope $-\frac{1}{3}$.

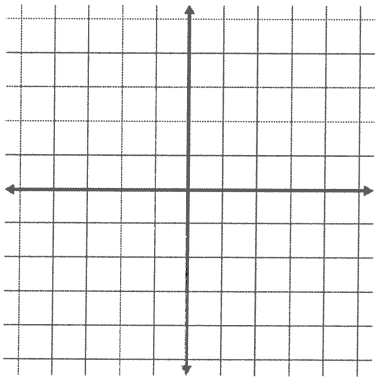
6) $m = \frac{3}{4}$, *Point* $(4, -2)$

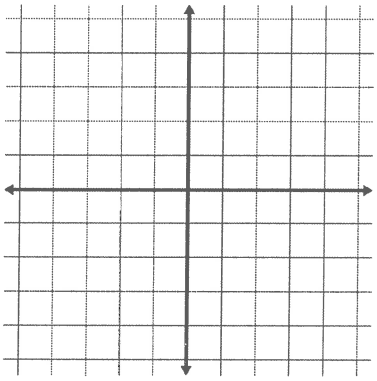
Point-Slope _____

Point-Slope _____

Slope-Intercept _____

Slope-Intercept _____





7) (2,1) *and* (4,0)

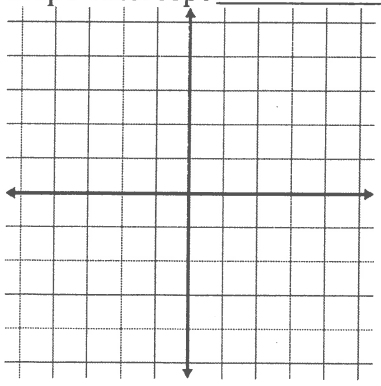
m=_____

Point-Slope _____

8) Point (1,2) m= ___

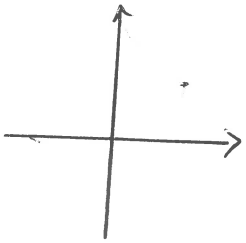
Line is parallel to line $3x + 2y = 6$

Slope-Intercept _____



point-slope _____

Slope-Intercept _____



let $x=0$ to find y-intercept
$y=0$ to find x-intercept

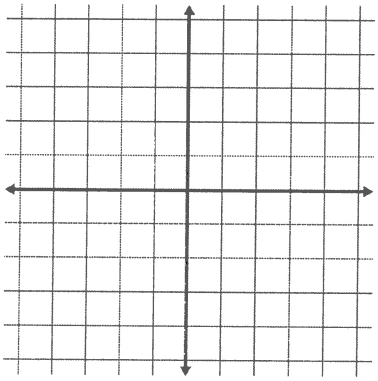
General Form: $\mathbf{Ax + By + C = 0}$

Write the equation in general form, find the intercepts, and graph.

8) $y = 2x + 5$

General Form _____

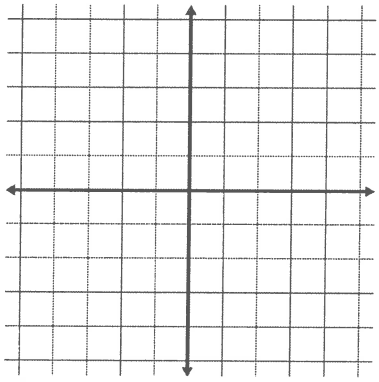
x-int _____ y-int _____



9) $2x - 5 = 3x$

general Form _____

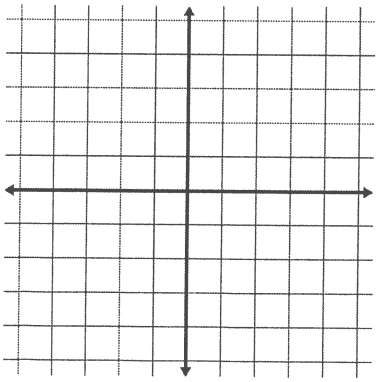
x-int _____ y-int _____



10) $2y - 3 = \frac{4}{5}x$

General Form _____

x-int _____ y-int _____



Practice converting between slope-intercept, **slope-point** and **general** forms.

$y = mx + b$ $\quad y - y_1 = m(x - x_1)$ $\quad Ax + By + C = 0$

1. Convert $6y + 4x = 7$ to: a) slope-intercept form and b) general form.

2. Convert $y + 1 = \frac{5}{4}(x - 2)$ to: a) general form and b) slope-intercept form

3. Convert $3x - 4y + 8 = 0$ to: slope-intercept form

4. Write a linear equation in slope-intercept form that has m = -4 and has an x intercept of (5,0).

5. Write an equation in point slope form that passes through (8, -2) and is perpendicular to $4x - 2y = 9$.